

=> file reg  
FILE 'REGISTRY' ENTERED AT 13:52:02 ON 16 AUG 2005  
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=> d his

FILE 'HCAPLUS' ENTERED AT 12:15:13 ON 16 AUG 2005  
L1 20840 S MIYAMOTO ?/AU  
L2 745 S TAYAMA ?/AU  
L3 34 S L1 AND L2  
L4 3101 S MIYAMOTO K?/AU  
L5 200 S TAYAMA T?/AU  
L6 0 S L4 AND L5  
L7 2528 S MIYAMOTO M?/AU  
L8 34 S L5 AND L7  
L9 173643 S BRANCH? OR BRANCH?/TI  
L10 11 S L8 AND L9  
L11 62672 S POLYCARBONATE# OR POLY(A)CARBONATE#  
L12 11 S L10 AND L11  
SEL L12 9 RN

FILE 'REGISTRY' ENTERED AT 12:23:35 ON 16 AUG 2005  
L13 7 S E1-E7  
SEL L13 1,2,3,4,5 RN  
L14 5 S E8-E12

FILE 'HCA' ENTERED AT 12:27:48 ON 16 AUG 2005  
L15 12 S L14  
L16 68476 S POLYCARBONATE# OR CARBONATE# (2A) (POLY OR POLYM? OR COPO  
L17 8 S L15 AND L16

FILE 'LREGISTRY' ENTERED AT 12:35:17 ON 16 AUG 2005  
L18 STR  
L19 STR L18

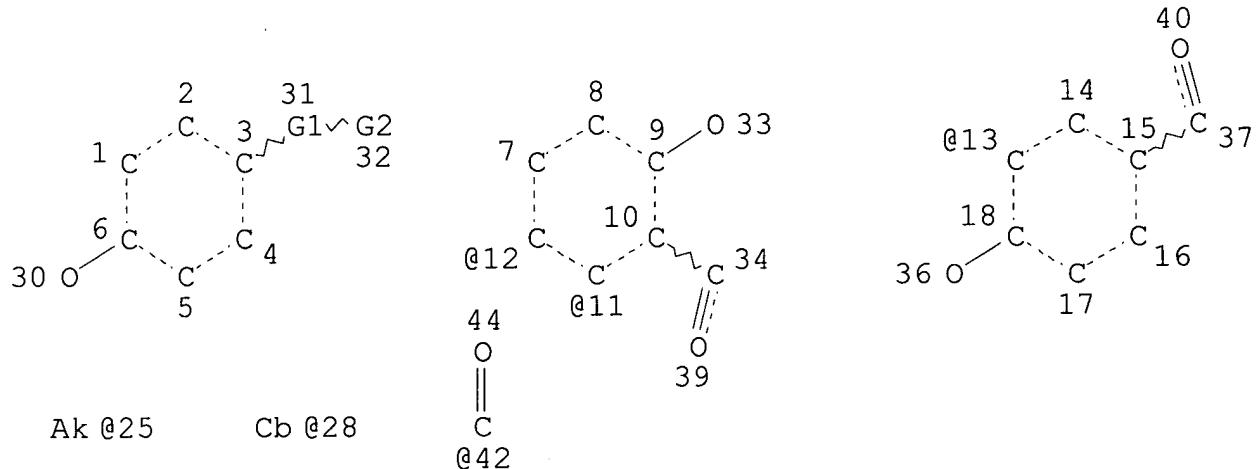
FILE 'REGISTRY' ENTERED AT 13:32:05 ON 16 AUG 2005  
E POLYCARBONATE/PCT  
L20 17966 S E3  
L21 STR L18  
L22 STR L19  
L23 1 S (L21 OR L22) SSS SAM SUB=L20  
L24 9 S (L21 OR L22) SSS FUL SUB=L20  
SAV L24 BOY672/A

FILE 'HCA' ENTERED AT 13:49:23 ON 16 AUG 2005

L25 11 S L24  
L26 15 S L17 OR L25

FILE 'REGISTRY' ENTERED AT 13:52:02 ON 16 AUG 2005

=> d 124 que stat  
L20 17966 SEA FILE=REGISTRY POLYCARBONATE/PCT  
L21 STR



VAR G1=25/28/O/S/42

VAR G2=12/11/13

#### NODE ATTRIBUTES:

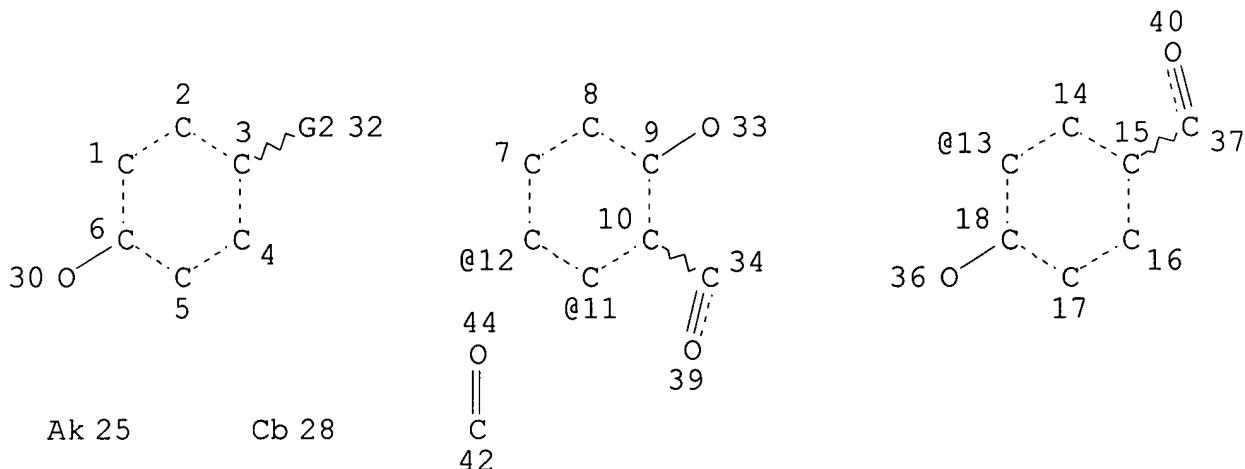
CONNECT IS E2 RC AT 25  
CONNECT IS E2 RC AT 28  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M1-X8 C AT 25  
ECOUNT IS M5-X15 C AT 28

#### GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE

L22 STR



VAR G2=12/11/13

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 25

CONNECT IS E2 RC AT 28

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M1-X8 C AT 25

ECOUNT IS M5-X15 C AT 28

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE

L24                9 SEA FILE=REGISTRY SUB=L20 SSS FUL (L21 OR L22)

100.0% PROCESSED      1912 ITERATIONS

SEARCH TIME: 00.00.01

9 ANSWERS

=> file hca

FILE 'HCA' ENTERED AT 13:52:13 ON 16 AUG 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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=> d 126 1-15 cbib abs hitstr hitind

L26 ANSWER 1 OF 15 HCA COPYRIGHT 2005 ACS on STN

138:402692 Aromatic **polycarbonate** compositions with good moldability and high mechanical strength. Yokota, Koshiro; Hachiya, Hiroshi (Asahi Kasei Corporation, Japan). Jpn. Kokai Tokkyo Koho JP 2003155408 A2 20030530, 16 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 2001-356485 20011121.

AB The compns. contain 100 parts arom. **polycarbonates** ( $M_w$  10,000-30,000) having structural repeating units  $OArO_2C$  ( $Ar =$  bivalent C5-200 arom. group) and 0.015-0.5% ester groups directly bonded to main chains, 5-200 parts copolymers manufd. by grafting arom. vinyl compds. and vinyl cyanides onto diene rubbers, and 5-200 parts glass fibers. Thus, pellets comprising bisphenol A-based **polycarbonate** ( $M_w$  19,500, ester content 0.016%, phenolic OH end group content 0.076%) manufd. by transesterification 100, ABS Resin RC (ABS rubber) 50, and ER 740 (glass roving) 20 parts were injection-molded to give a test piece showing Izod impact strength  $\geq 10$  kg/cm and flexural modulus  $\geq 60,000$  kg/cm<sup>2</sup>. No deposition was obsd. in an injection mold until molding 8500 times.

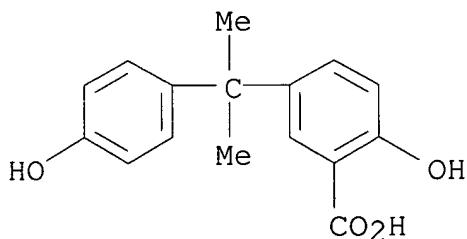
IT **101949-49-9D, polycarbonates** with bisphenol A and carbonic acid diesters

(ABS rubber and glass fiber blends, impact-resistant; arom.

**polycarbonate** compns. with good moldability and high mech. strength)

RN 101949-49-9 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
(CA INDEX NAME)



IC ICM C08L069-00

ICS C08G064-06; C08K007-14; C08L051-04

CC 37-6 (Plastics Manufacture and Processing)

ST arom **polycarbonate** ABS rubber impact resistance; ester arom **polycarbonate** glass fiber moldability; grafted rubber **polycarbonate** glass fiber strength

IT Glass roving

(aminosilane-treated, **polycarbonate** and ABS rubber blends, impact-resistant; arom. **polycarbonate** compns. with good moldability and high mech. strength)

IT Impact-resistant materials

(arom. **polycarbonate** compns. with good moldability and

IT      high mech. strength)

IT      **Polycarbonates**, uses  
       (arom., ester group-contg., ABS rubber and glass fiber blends,  
       impact-resistant; arom. **polycarbonate** compns. with good  
       moldability and high mech. strength)

IT      Reinforced plastics  
       (glass fiber-reinforced; arom. **polycarbonate** compns.  
       with good moldability and high mech. strength)

IT      ABS rubber  
       (graft, **polycarbonate** and glass fiber blends,  
       impact-resistant; arom. **polycarbonate** compns. with good  
       moldability and high mech. strength)

IT      80-05-7D, Bisphenol A, **polycarbonates** with carbonic acid  
       diesters, ester group-contg. **101949-49-9D**,  
       **polycarbonates** with bisphenol A and carbonic acid diesters  
       (ABS rubber and glass fiber blends, impact-resistant; arom.  
       **polycarbonate** compns. with good moldability and high  
       mech. strength)

IT      106677-58-1  
       (abs rubber, graft, **polycarbonate** and glass fiber  
       blends, impact-resistant; arom. **polycarbonate** compns.  
       with good moldability and high mech. strength)

IT      463-79-6D, Carbonic acid, diesters, **polycarbonates** with  
       arom. dihydroxy compds.  
       (graft copolymer and glass fiber blends, impact-resistant; arom.  
       **polycarbonate** compns. with good moldability and high  
       mech. strength)

IT      331424-20-5, ER 740  
       (**polycarbonate** and ABS rubber blends, impact-resistant;  
       arom. **polycarbonate** compns. with good moldability and  
       high mech. strength)

L26 ANSWER 2 OF 15 HCA COPYRIGHT 2005 ACS on STN

138:402681 Aromatic **polycarbonate** compositions with improved  
       impact resistance. Yokota, Koshiro; Hachiya, Hiroshi (Asahi Kasei  
       Corporation, Japan). Jpn. Kokai Tokkyo Koho JP 2003155337 A2  
       20030527, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP  
       2001-356484 20011121.

AB      The compns. with high strength and flowability, scarcely staining  
       molds in molding process, comprise (A) arom. **polycarbonates**  
       having repeating units OArO<sub>2</sub>C (Ar = divalent C<sub>5</sub>-200 arom. residue),  
       content of ester groups directly bonded to main chains 0.015-0.5%,  
       and wt.-av. mol. wt. 10,000-30,000 100, (B) diene rubber-arom. vinyl  
       compd.-vinyl cyanide graft copolymers 5-200, and (C) carbon fibers  
       5-200 parts. Thus, a compn. contg. bisphenol A-based  
       **polycarbonate**, ABS Resin RC (acrylonitrile-butadiene-styrene  
       graft copolymer), and Besfight HTA-C 6U (carbon fiber) was  
       injection-molded to give a test piece showing notched Izod impact

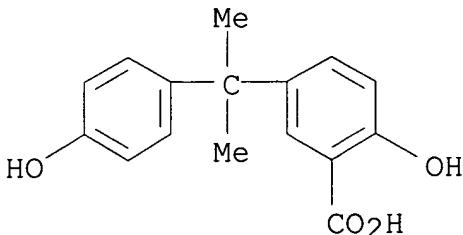
IT strength  $\geq 10$  kg-cm/cm.

**101949-49-9D, polycarbonate**

(arom. **polycarbonate**-graft copolymer-carbon fiber blends with improved impact resistance)

RN 101949-49-9 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
(CA INDEX NAME)



IC ICM C08G064-04

ICS C08G064-42; C08K007-06; C08L055-02; C08L069-00

CC 37-6 (Plastics Manufacture and Processing)

ST arom **polycarbonate** graft copolymer carbon fiber blend;  
impact resistance arom **polycarbonate** blend; bisphenol A  
**polycarbonate** ABS resin carbon fiber blend; ABS graft  
copolymer **polycarbonate** carbon fiber blend

IT Carbon fibers, uses

(Besfight HTA-C 6U; arom. **polycarbonate**-graft copolymer-carbon fiber blends with improved impact resistance)

IT Impact-resistant materials

(arom. **polycarbonate**-graft copolymer-carbon fiber blends with improved impact resistance)

IT Polymer blends

(arom. **polycarbonate**-graft copolymer-carbon fiber blends with improved impact resistance)

IT **Polycarbonates**, uses

(arom.; arom. **polycarbonate**-graft copolymer-carbon fiber blends with improved impact resistance)

IT 106677-58-1, ABS graft copolymer

(ABS Resin RC; arom. **polycarbonate**-graft copolymer-carbon fiber blends with improved impact resistance)

IT 80-05-7D, Bisphenol A, **polycarbonate** 101949-49-9D

, **polycarbonate**

(arom. **polycarbonate**-graft copolymer-carbon fiber blends with improved impact resistance)

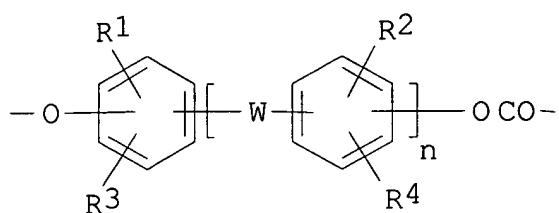
L26 ANSWER 3 OF 15 HCA COPYRIGHT 2005 ACS on STN

138:123601 Aromatic polycarbonate composition and recording disk

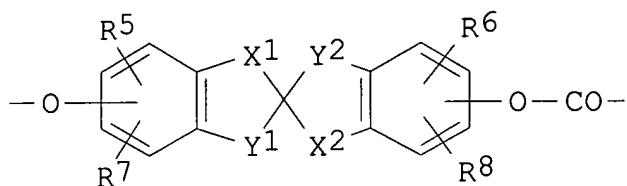
substrate prepared therefrom. Funakoshi, Wataru; Miyoshi, Takanori;  
Kageyama, Yuichi; Sasaki, Katsushi (Teijin Ltd., Japan). Jpn. Kokai

Tokkyo Koho JP 2003026913 A2 20030129, 19 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-108894 20020411. PRIORITY: JP 2001-120029 20010418.

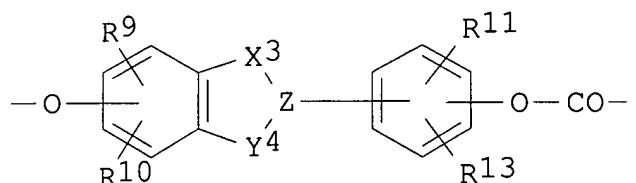
GI



I



II



III

AB Optical recording media substrate, which is accurate and recyclable, is prep'd. from arom. polycarbonate compn. contg. 100 parts of polycarbonate consisting at least one repeating unit selected from I, II, and III, in which R1-13 = H, C1-10 alkyl, C7-10 aralkyl, and C1-6 aryl, W = C2-10 alkylidene, C1-10 alkylene, C5-10 cycloalkylidene, C5-10 cycloalkylene, O, S, sulfoxide, and sulfone, n = 0-2, X1-3, Y1-2,4 = C1-5 alkylene, Z = C1-6 hydrocarbonyl with a carbon atom having three linkage points, 0.005-0.2 parts of ester formed by C10-25 aliph. monocarboxylic acid and C2-10 aliph. multivalent alc., and, optionally, 0.000001-0.01 parts of phosphorous oxyacid. The arom. polycarbonate is obtained by transesterification of arom. dihydroxy compd and diester carbonate in the presence of alkali metal catalysts selected from Li, K, Ru compds. Thus, phenyl-terminated polycarbonate prep'd. from bisphenol A, diphenylcarbonate, and 2-methoxycarbonylphenylphenyl carbonate, glycerol monostearate 350 ppm, and tris(2,4-di-t-butylphenyl)phosphate 50 ppm were coextruded at 290.degree. to obtain a polycarbonate compn.

IT **443302-41-8P**

(arom. polycarbonate compn. for recording disk substrate)

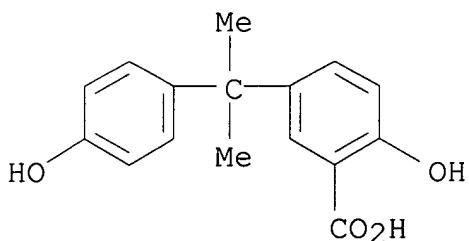
RN 443302-41-8 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]-, polymer with diphenyl carbonate and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 101949-49-9

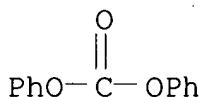
CMF C16 H16 O4



CM 2

CRN 102-09-0

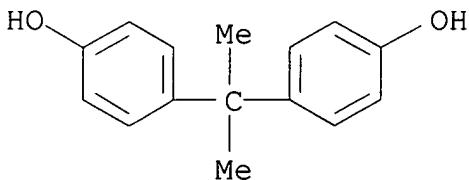
CMF C13 H10 O3



CM 3

CRN 80-05-7

CMF C15 H16 O2



IC ICM C08L069-00

ICS C08G064-04; C08G064-30; C08J005-18; C08K003-32; C08K005-103; G11B007-24; G11B011-105

CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 37, 74  
 IT 24936-68-3P, Bisphenol A-Diphenylcarbonate copolymer, sru, uses  
 25929-04-8P, Bisphenol A-Diphenylcarbonate copolymer  
 189010-65-9DP, 2-Methoxycarbonylphenylphenyl carbonate, reaction  
 products with polycarbonate **443302-41-8P**  
 (arom. polycarbonate compn. for recording disk substrate)

L26 ANSWER 4 OF 15 HCA COPYRIGHT 2005 ACS on STN

137:170327 Branched aromatic **polycarbonate** and process for  
 producing the same. Miyamoto, Masaaki; Tayama, Takao (Mitsubishi  
 Chemical Corporation, Japan). PCT Int. Appl. WO 2002062870 A1  
 20020815, 26 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ,  
 BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ,  
 EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG,  
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,  
 NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN,  
 TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ,  
 MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK,  
 ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN,  
 TD, TG, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2002-JP793  
 20020131. PRIORITY: JP 2001-29951 20010206.

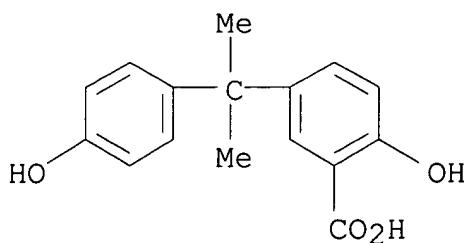
AB A branched arom. **polycarbonate** excellent in hue and melt  
 properties such as melt strength is obtained through  
 transesterification and has a viscosity-av. mol. wt. of 16,000 or  
 higher, where the amt. of structural units O-p-C<sub>6</sub>H<sub>4</sub>X<sub>1</sub>CO,  
 O-p-C<sub>6</sub>H<sub>4</sub>X<sub>2</sub>CO and O-p-C<sub>6</sub>H<sub>4</sub>X<sub>3</sub>CO (A<sub>1</sub> = 4-hydroxy-1,3-phenylene  
 provided that the position connecting to CO is 3; A<sub>2</sub> =  
 2-hydroxy-1,3-phenylene provided that the position connecting to CO  
 is 3; A<sub>3</sub> = 2-hydroxy-1,5-phenylene provided that the position  
 connecting to CO is 5; X = direct bond or linking groups) in main  
 chain derived from the site transfer reaction during  
 transesterification reaction are at 2,000-50,000, 30-10,000 and  
 30-10,000 wt. ppm, resp.

IT **101949-49-9P 446246-17-9P 446246-18-0P**  
**446246-19-1P 446246-20-4P**

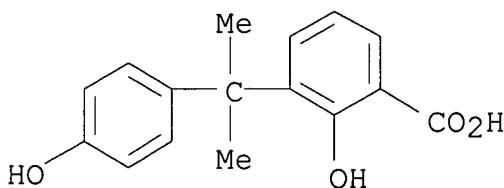
(branched arom. **polycarbonates** contg. sub-structures  
 derived from carboxybisphenols produced by transfer reaction of  
 carbonate groups)

RN 101949-49-9 HCA

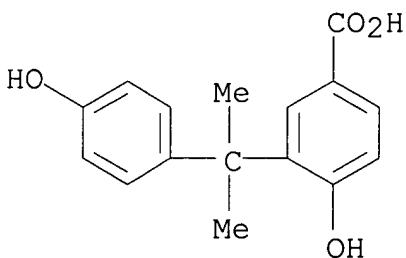
CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
 (CA INDEX NAME)



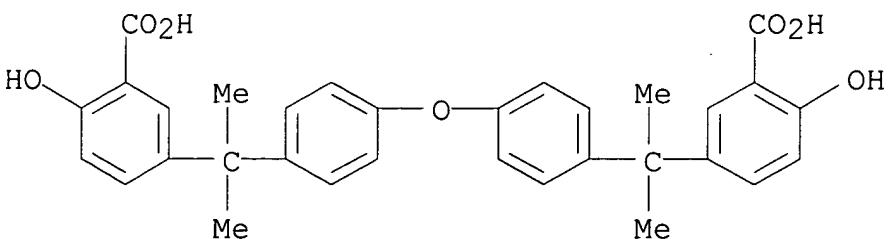
RN 446246-17-9 HCA  
 CN Benzoic acid, 2-hydroxy-3-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
 (CA INDEX NAME)



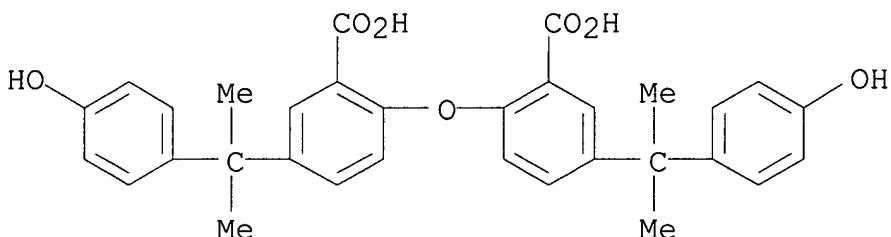
RN 446246-18-0 HCA  
 CN Benzoic acid, 4-hydroxy-3-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
 (CA INDEX NAME)



RN 446246-19-1 HCA  
 CN Benzoic acid, 3,3'-[oxybis[4,1-phenylene(1-methylethylidene)]]bis[6-hydroxy- (9CI) (CA INDEX NAME)



RN 446246-20-4 HCA  
 CN Benzoic acid, 2,2'-oxybis[5-[1-(4-hydroxyphenyl)-1-methylethyl]-  
 (9CI) (CA INDEX NAME)



IC ICM C08G064-14  
 CC 37-3 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 35  
 ST bisphenol **polycarbonate** branching structure hue melt  
 strength relation  
 IT **Polycarbonates**, preparation  
 (bisphenol-based; branched arom. **polycarbonate** and  
 process for producing same)  
 IT Polymer chains  
 (branched arom. **polycarbonate** and process for producing  
 same)  
 IT 24936-68-3P, Bisphenol A-diphenyl **carbonate**  
**copolymer** sru, preparation 25929-04-8P, Bisphenol  
 A-diphenyl **carbonate copolymer**  
 (branched arom. **polycarbonate** and process for producing  
 same)  
 IT **101949-49-9P 446246-17-9P 446246-18-0P**  
**446246-19-1P 446246-20-4P**  
 (branched arom. **polycarbonates** contg. sub-structures  
 derived from carboxybisphenols produced by transfer reaction of  
 carbonate groups)

L26 ANSWER 5 OF 15 HCA COPYRIGHT 2005 ACS on STN  
 137:110005 Polycarbonate compositions with good transcript precision and  
 laser disk substrates using them. Funakoshi, Wataru; Miyoshi,  
 Takanori; Kageyama, Yuichi; Sasaki, Katsushi (Teijin Ltd., Japan).  
 Jpn. Kokai Tokkyo Koho JP 2002212411 A2 20020731, 13 pp.  
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-10001 20010118.  
 AB The compns. contain 100 parts arom. polycarbonates having repeating  
 units of OXWZOCO (X, Z = p-phenylene group optionally bearing C1-10  
 alkyl, aralkyl or aryl groups; W = direct bond, alkylidene,  
 alkylene, cycloalkylidene, cycloalkylene, phenyl-substituted  
 alkylene, O, S, SO<sub>2</sub>) and viscosity-av. mol. wt. of 12,000-17,000,  
 and 0.005-0.2 parts C10-25 aliph. monocarboxylic acids and C2-10

aliph. polyalc. fatty acid esters, and have the enthalpy relaxation of 2.2-3.8 J/g, where the polycarbonates are prep'd. by the melt polymn. of a bisphenol compd. with a carbonate group former in the presence of a transesterification catalyst. Thus, heating 137 parts a purified bisphenol A with 133 parts di-Ph carbonate in the presence of  $7.1 \times 10^{-5}$  parts bisphenol A di-Li salt and  $5 \times 10^{-3}$  parts tetramethylammonium hydroxide under N to 180.degree. until melting, stirring the resulting melt while pulling the pressure to 100 mm-Hg, reacting for 20 min while distg. off phenol, heating up to 200.degree. while distg. off phenol at 30 mm-Hg, slowly heating up and maintaining for 20 min each at 220.degree., 240.degree. and 260.degree., resp., pulling the pressure to 20 mm-Hg over 10 min then to 10 mm-Hg, after reacting for min, pulling the pressure to 0.5 mm-Hg and reacting at 260.degree. until a viscosity-av. mol. wt. of 15,300 was reached, adding  $7.2 \times 10^{-4}$  parts dodecylbenzenesulfonic acid tetra-Bu phosphonium salt and mixing at 260.degree./0.5 mm-Hg for 10 min gave a polycarbonate with phenolic OH group content 130 equiv/ton-polycarbonate, phenoxy group content 191 equiv/ton-polycarbonate and branching rate 0.03 mol%. Molding a compn. of the polycarbonate contg. 300 ppm glycerol monostearate, 50 ppm tris(2,4-di-tert-butylphenyl) phosphite, 10% H<sub>3</sub>PO<sub>4</sub> and 50% tri-Me phosphate gave test pieces with good detail transfer precision, enthalpy relaxation 2.4 J/g and Tg 145.degree..

IT **443302-41-8P**, Bisphenol A;2-(3-carboxy-4-hydroxyphenyl)-2-(4-hydroxyphenyl)propane;diphenyl carbonate copolymer

(polycarbonate compns. with good transcript precision and laser disk substrates using them)

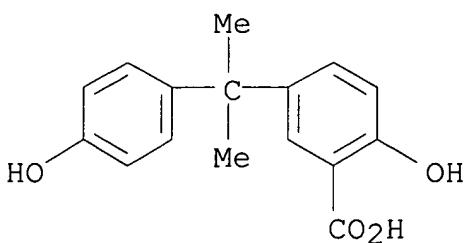
RN 443302-41-8 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]-, polymer with diphenyl carbonate and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

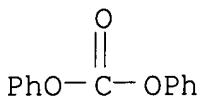
CRN 101949-49-9

CMF C16 H16 O4



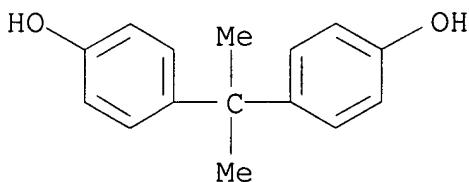
CM 2

CRN 102-09-0  
 CMF C13 H10 O3



CM 3

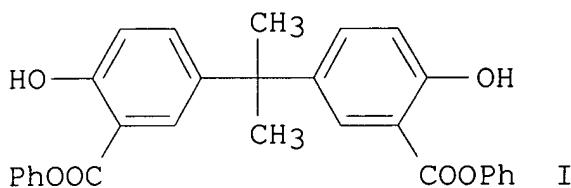
CRN 80-05-7  
 CMF C15 H16 O2



IC ICM C08L069-00  
 ICS C08G064-30; C08K005-103; G11B007-24  
 CC 37-3 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 76  
 IT 25037-45-0P, Bisphenol A polycarbonate 25929-04-8P, Bisphenol A-diphenyl carbonate copolymer 25971-63-5P, Bisphenol A-phosgene copolymer **443302-41-8P**, Bisphenol A;2-(3-carboxy-4-hydroxyphenyl)-2-(4-hydroxyphenyl)propane;diphenyl carbonate copolymer  
 (polycarbonate compns. with good transcript precision and laser disk substrates using them)

L26 ANSWER 6 OF 15 HCA COPYRIGHT 2005 ACS on STN  
 135:319061 Branched aromatic polycarbonates with improved fluidity under high load and their preparation. Miyamoto, Masaaki; Tayama, Takao (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001302780 A2 20011031, 13 pp. (Japanese). CODEN: JKXXAF.  
 APPLICATION: JP 2000-119494 20000420.

GI



AB The process is characterized by transesterification of carbonic diesters and arom. hydroxy compds. in the presence of .gtoreq.0.01 mol% (based on the arom. hydroxy compds.) branching agents bearing (esterified) carboxyl or halocarbonyl and .gtoreq.2 (/mol.) OH groups. The branching agents may be HOQ1XQ2OH or OHQ3XQ4OQ5XQ6OH [Q1-6 = p-C<sub>6</sub>H<sub>4</sub> where Q1 and/or Q2 and .gtoreq.1 of Q3-6 bear (esterified) carboxyl or halocarbonyl; X = single bond, C1-8 alkylene, C2-8 alkylidene, C5-15 cycloalkyl(id)ene, O, S, CO, SO, SO<sub>2</sub>]. Thus, di-Ph carbonate 205.0, bisphenol A 197.1, and I 0.59 mol/h were transesterified in the presence of Cs carbonate and polycondensed to give an arom. polycarbonate showing yellowness index 2.5, melt index (21.6-kg load) 18.41, and author's defined branching coeff. (ratio of sample wt. extruded under 21.6-kg load and that under 2.16-kg load at 260.degree.) 20.5.

**IT 368872-96-2P 368872-98-4P 368873-00-1P**

(prepn. of branched arom. polycarbonates with good yellowing resistance, heat stability, and improved fluidity under high load)

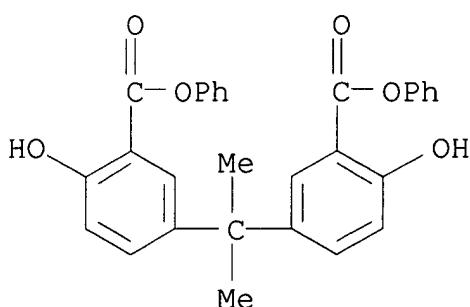
RN 368872-96-2 HCA

CN Benzoic acid, 3,3'-(1-methylethylidene)bis[6-hydroxy-, diphenyl ester, polymer with diphenyl carbonate and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

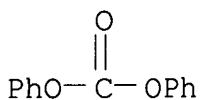
CRN 368872-95-1

CMF C29 H24 O6



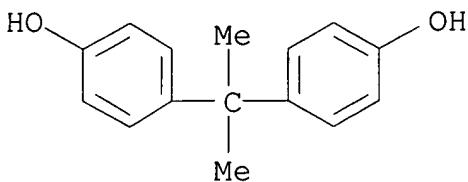
CM 2

CRN 102-09-0  
 CMF C13 H10 O3



CM 3

CRN 80-05-7  
 CMF C15 H16 O2

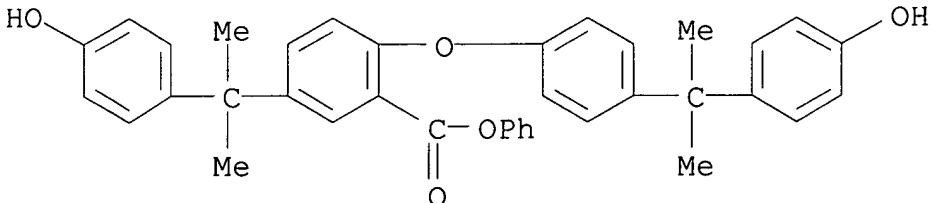


RN 368872-98-4 HCA

CN Benzoic acid, 5-[1-(4-hydroxyphenyl)-1-methylethyl]-2-[4-[1-(4-hydroxyphenyl)-1-methylethyl]phenoxy]-, phenyl ester, polymer with diphenyl carbonate and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

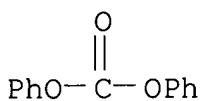
CRN 368872-97-3  
 CMF C37 H34 O5



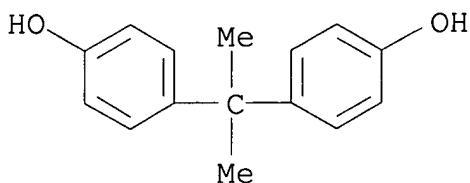
CM 2

CRN 102-09-0

CMF C13 H10 O3

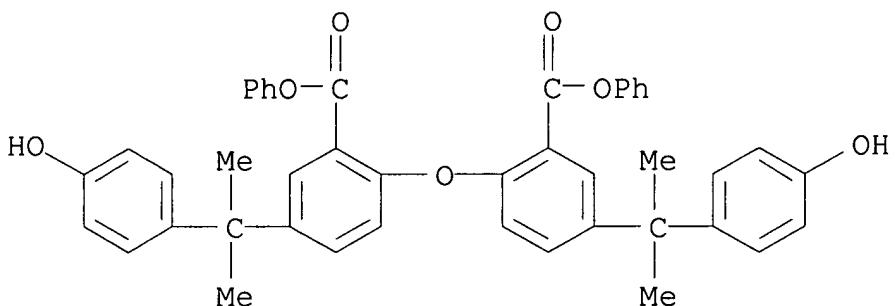


CM 3

CRN 80-05-7  
CMF C15 H16 O2

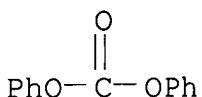
RN 368873-00-1 HCA  
 CN Benzoic acid, 2,2'-oxybis[5-[1-(4-hydroxyphenyl)-1-methylethyl]-, diphenyl ester, polymer with diphenyl carbonate and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

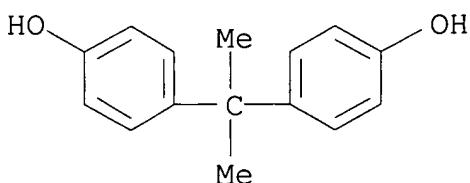
CRN 368872-99-5  
CMF C44 H38 O7

CM 2

CRN 102-09-0  
CMF C13 H10 O3



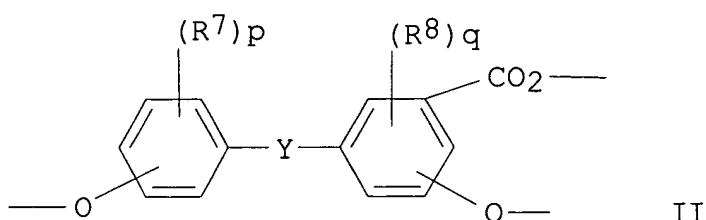
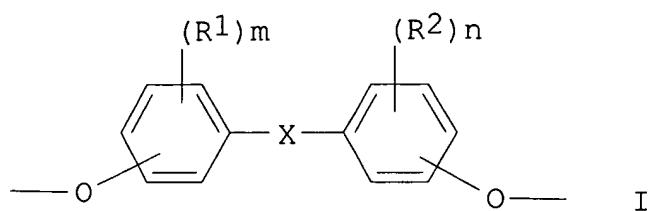
CM 3

CRN 80-05-7  
CMF C15 H16 O2

IC ICM C08G064-30  
CC 37-3 (Plastics Manufacture and Processing)  
Section cross-reference(s): 35, 38  
IT **368872-96-2P 368872-98-4P 368873-00-1P**  
(prepn. of branched arom. polycarbonates with good yellowing resistance, heat stability, and improved fluidity under high load)

L26 ANSWER 7 OF 15 HCA COPYRIGHT 2005 ACS on STN  
126:226011 Copolycarbonate compositions with excellent moldability and molding color stability and surface appearances. Shimoda, Tomoaki; Sakashita, Takeshi (GE Plastics Japan Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 09031316 A2 19970204 Heisei, 19 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-205075 19950720.

GI



AB The title compns. comprise (A) copolycarbonates contg. arom. dihydroxy compd.-derived units I and II [X, Y = CR<sub>3</sub>R<sub>4</sub>, C(:R<sub>5</sub>), O, S, SO, SO<sub>2</sub>; R<sub>1</sub>, R<sub>2</sub>, R<sub>7</sub>, R<sub>8</sub> = (halo) C<sub>1</sub>-10 hydrocarbyl, halogen; R<sub>3</sub>, R<sub>4</sub> = H, (halo)hydrocarbyl; R<sub>5</sub> = (halo)hydrocarbylene; m, n, p = 0-4; q = 0-3] and (B) fillers. Bisphenol A-2-(4-hydroxyphenyl)-2-(3- phenoxy carbonyl-4-hydroxyphenyl)propane-diphenyl carbonate copolymer contg. 70 phr glass fiber and other usual additives showed good injection and blow moldability.

IT **167163-45-3P**

(copolycarbonate compns. with excellent moldability)

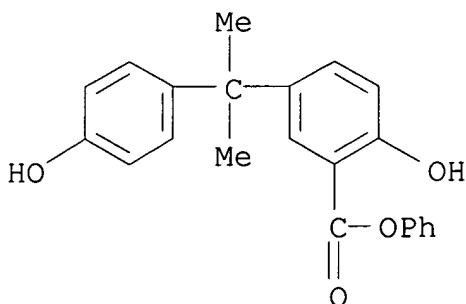
RN 167163-45-3 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]-, phenyl ester, polymer with diphenyl carbonate and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

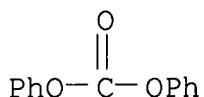
CM 1

CRN 167163-44-2

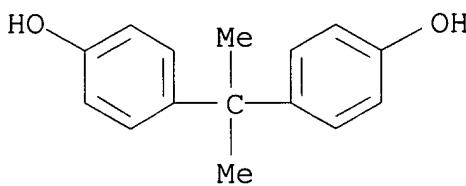
CMF C<sub>22</sub> H<sub>20</sub> O<sub>4</sub>



CM 2

CRN 102-09-0  
CMF C13 H10 O3

CM 3

CRN 80-05-7  
CMF C15 H16 O2IC ICM C08L069-00  
ICS C08K003-40; C08K005-04; C08K005-41; C08K005-52; C08K007-06;  
C08K007-14

CC 37-6 (Plastics Manufacture and Processing)

IT **167163-45-3P**  
(copolycarbonate compns. with excellent moldability)

L26 ANSWER 8 OF 15 HCA COPYRIGHT 2005 ACS on STN

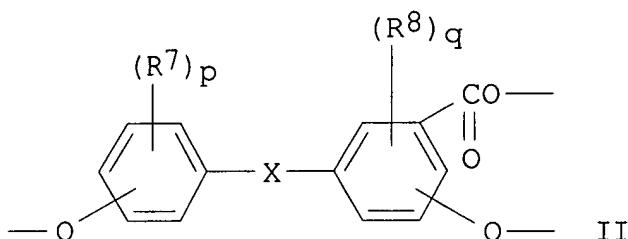
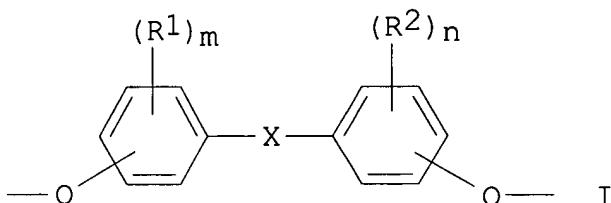
126:226010 Copolycarbonate compositions with excellent moldability.

Shimoda, Tomoaki; Sakashita, Takeshi (GE Plastics Japan Ltd, Japan).

Jpn. Kokai Tokkyo Koho JP 09031317 A2 19970204 Heisei, 20 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-205076 19950720.

GI



AB The title compns. comprise (A) copolycarbonates contg. arom. dihydroxy compd.-derived units I and II [X, Y = CR<sub>3</sub>R<sub>4</sub>, C(:R<sub>5</sub>), O, S, SO, SO<sub>2</sub>; R<sub>1</sub>, R<sub>2</sub>, R<sub>7</sub>, R<sub>8</sub> = (halo) C<sub>1</sub>-10 hydrocarbyl, halogen; R<sub>3</sub>, R<sub>4</sub> = H, (halo)hydrocarbyl; R<sub>5</sub> = (halo)hydrocarbylene; m, n, p = 0-4; q = 0-3] and (B) other thermoplastic resins. A 60:40 blend of bisphenol A-2-(4-hydroxyphenyl)-2-(3-phenoxy carbonyl-4-hydroxyphenyl)propane-diphenyl carbonate copolymer and PBT and other additives showed good injection and blow moldability.

IT **167163-45-3P**, Bisphenol A-diphenyl carbonate-2-(4-hydroxyphenyl)-2-(4-hydroxy-3-phenoxy carbonylphenyl)propane copolymer

(copolycarbonate compns. with excellent moldability)

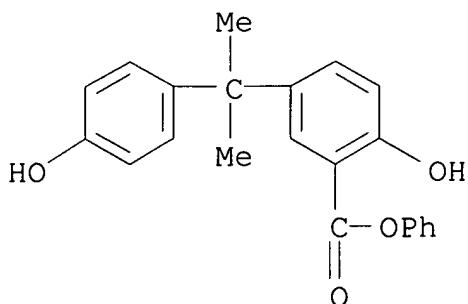
RN 167163-45-3 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]-, phenyl ester, polymer with diphenyl carbonate and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

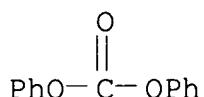
CM 1

CRN 167163-44-2

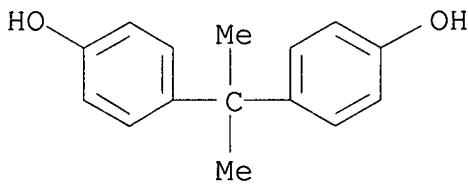
CMF C22 H<sub>2</sub>O O<sub>4</sub>



CM 2

CRN 102-09-0  
CMF C13 H10 O3

CM 3

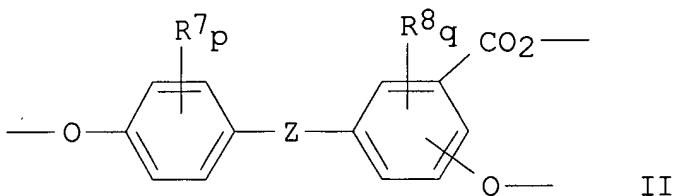
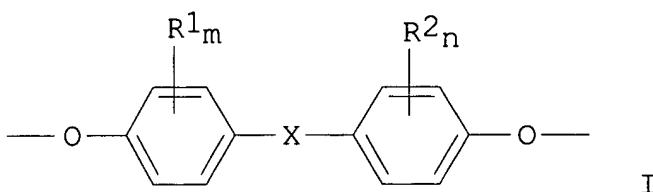
CRN 80-05-7  
CMF C15 H16 O2

IC ICM C08L069-00  
 ICS C07C065-105; C08K005-04; C08K005-41; C08K005-52; C08L033-12;  
 C08L055-02; C08L067-02; C08L077-00; C08L079-08; C08L101-00  
 CC 37-6 (Plastics Manufacture and Processing)  
 IT **167163-45-3P**, Bisphenol A-diphenyl carbonate-2-(4-hydroxyphenyl)-2-(4-hydroxy-3-phenoxy carbonylphenyl)propane copolymer  
 (copolycarbonate compns. with excellent moldability)

L26 ANSWER 9 OF 15 HCA COPYRIGHT 2005 ACS on STN  
 125:249967 **Polycarbonates** for optical materials. Isawa,  
 Kenichi; Kodaira, Tetsuji (GE Plastics Japan Ltd, Japan). Jpn.

Kokai Tokkyo Koho JP 08183842 A2 19960716 Heisei, 15 pp.  
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-339661 19941228.

GI



AB Title polymers, having viscosity-av. mol. wt. (Mv) 12,000-18,000, and useful for optical disks, lenses, etc., contain the repeating units of 1 mol I and 8 times. 10<sup>-5</sup> - 1.5 times. 10<sup>-3</sup> mol II [R1, R2, R7, R8 = (halo-substituted) C1-10 linear or cyclic hydrocarbyl, halo; X, Z = R<sub>3</sub>CR<sub>4</sub>, C:R<sub>5</sub>, O, S, SO, SO<sub>2</sub>; R<sub>3</sub>, R<sub>4</sub> = H, (halo-substituted) C1-15 linear, branched, or cyclic monovalent hydrocarbyl; R<sub>5</sub> = (halo-substituted) C1-15 linear, branched, or cyclic hydrocarbylene; m, n = 0-4; p = 0-4; q = 0-3]. Thus, 0.433 mol 2-(4-hydroxyphenyl)-2-(3-phenoxy carbonyl-4-hydroxyphenyl)propane was polymd. with 0.44 kmol bisphenol A and 0.46 kmol di-Ph carbonate to give a polymer with Mv 15,500, which was made into a compact disk showing low birefringence.

IT **167163-45-3P**(prepn. of **polycarbonates** for optical materials)

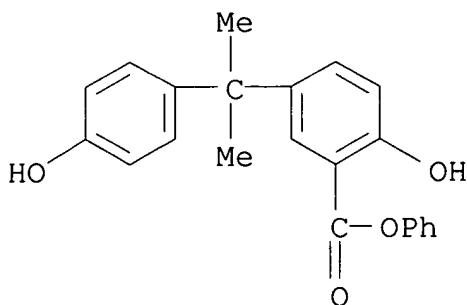
RN 167163-45-3 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]-, phenyl ester, polymer with diphenyl carbonate and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

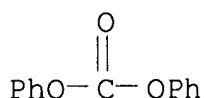
CM 1

CRN 167163-44-2

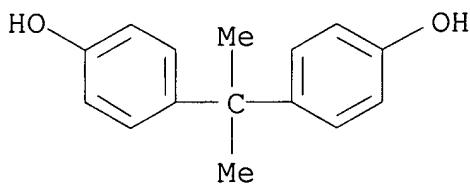
CMF C22 H20 O4



CM 2

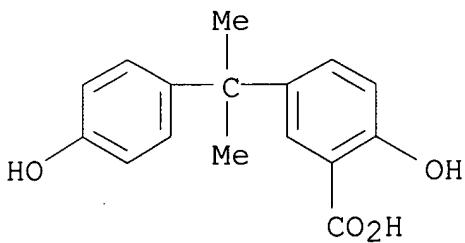
CRN 102-09-0  
CMF C13 H10 O3

CM 3

CRN 80-05-7  
CMF C15 H16 O2IT **101949-49-9P**(prepn. of **polycarbonates** for optical materials)

RN 101949-49-9 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
(CA INDEX NAME)



IC ICM C08G064-04  
 ICS G02B001-04  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 35, 73  
 ST **polycarbonate** bisphenol compact disk birefringence; arom  
**polycarbonate** optical material  
 IT Optical materials  
     (prepn. of **polycarbonates** for optical materials)  
 IT Memory devices  
     (optical disks, read-only, prepn. of **polycarbonates** for  
     optical materials)  
 IT Polyesters, uses  
     (**polycarbonate-**, arom., prepn. of  
     **polycarbonates** for optical materials)  
 IT **Polycarbonates**, uses  
     (polyester-, arom., prepn. of **polycarbonates** for  
     optical materials)  
 IT **167163-45-3P**  
     (prepn. of **polycarbonates** for optical materials)  
 IT **101949-49-9P** 167163-44-2P  
     (prepn. of **polycarbonates** for optical materials)  
 IT 102-09-0, Diphenyl carbonate 25088-71-5, Bisphenol A potassium  
     salt  
     (prepn. of **polycarbonates** for optical materials)

L26 ANSWER 10 OF 15 HCA COPYRIGHT 2005 ACS on STN  
 125:223563 Aromatic copolycarbonate compositions for optical products.  
 Isawa, Kenichi; Mori, Kenichi; Kodaira, Tetsuji (GE Plastics Japan  
 Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08183843 A2 19960716 Heisei,  
 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-339664  
 19941228.  
 AB The title compns. contain (A) 100 parts copolycarbonates having  
 viscosity-av. mol. wt. 12,000-18,000 and contg. 1:(8 .times.  
 10-5-1.5 .times. 10-3) OC<sub>6</sub>H<sub>4</sub>-m(R<sub>1</sub>)<sub>m</sub>XC<sub>6</sub>H<sub>4</sub>-n(R<sub>2</sub>)<sub>n</sub>O and  
 OC<sub>6</sub>H<sub>4</sub>-p(R<sub>7</sub>)pYC<sub>6</sub>H<sub>3</sub>-q(R<sub>8</sub>)q(CO<sub>2</sub>)O [R<sub>1</sub>, R<sub>2</sub>, R<sub>7</sub>, R<sub>8</sub> = C<sub>1</sub>-10  
 (halo)hydrocarbyl, halo; X, Y = CR<sub>3</sub>R<sub>4</sub>, C:R<sub>5</sub>, O, S, SO<sub>2</sub>; R<sub>3</sub>, R<sub>4</sub> =  
 H, C<sub>1</sub>-15 (halo)hydrocarbyl; R<sub>5</sub> = C<sub>1</sub>-15 (halo)hydrocarbylidene; m, n,  
 p = 0-4; q = 0-3] and (B) 0.01-0.1 part aliph. carboxylic acid

polyalc. esters. Thus, 0.44 kmol bisphenol A, 0.433 mol 2-(4-hydroxyphenyl)-2-(3-phenoxy carbonyl-4-hydroxyphenyl)propane (prepd. from bisphenol A K salt and CO<sub>2</sub>), and 0.46 kmol Ph<sub>2</sub>CO<sub>3</sub> were polymd. at 180-240.degree. under normal pressure to 15 mmHg for 1 h to give copolycarbonate, which (100 parts) was mixed with 0.05 part stearic acid monoglyceride to prep. a compact disk without stringiness.

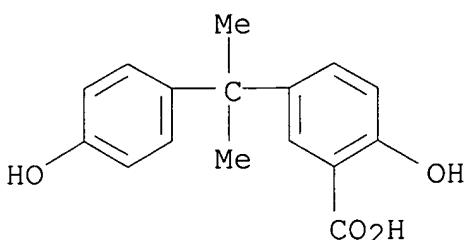
IT 101949-49-9DP, polymers with carbonates

167163-45-3P

(arom. copolycarbonate compns. for optical products)

RN 101949-49-9 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
(CA INDEX NAME)



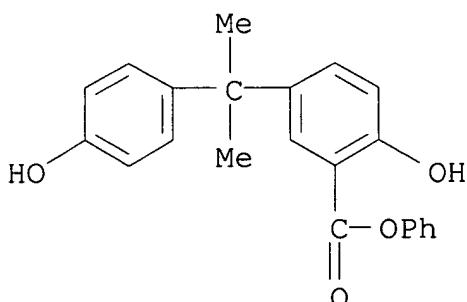
RN 167163-45-3 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]-, phenyl ester, polymer with diphenyl carbonate and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 167163-44-2

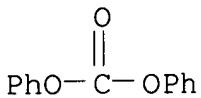
CMF C22 H20 O4



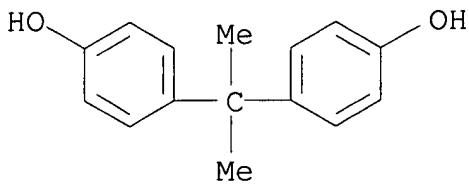
CM 2

CRN 102-09-0

CMF C13 H10 O3

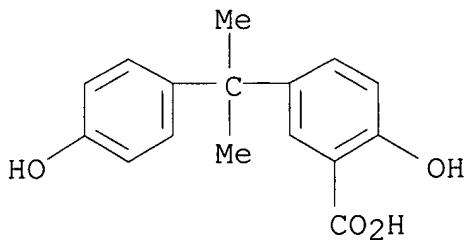


CM 3

CRN 80-05-7  
CMF C15 H16 O2IT **101949-49-9P**

(arom. copolycarbonate compns. for optical products)

RN 101949-49-9 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
(CA INDEX NAME)

IC ICM C08G064-04

ICS C08K005-109; C08L069-00; G02B001-04; G02B007-02

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 74

ST polycarbonate polyalc carboxylate optical product

IT **Polycarbonates, preparation**

(arom., arom. copolycarbonate compns. for optical products)

IT **101949-49-9DP, polymers with carbonates****167163-45-3P**

(arom. copolycarbonate compns. for optical products)

IT **101949-49-9P 167163-44-2P**

(arom. copolycarbonate compns. for optical products)

L26 ANSWER 11 OF 15 HCA COPYRIGHT 2005 ACS on STN  
 123:144999 **Polycarbonates** and their manufacture. Sakashita,  
 Takeshi; Shimoda, Tomoaki; Nagai, Koji (GE Plastics Japan Ltd,  
 Japan). Jpn. Kokai Tokkyo Koho JP 07149887 A2 19950613 Heisei, 17  
 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-319281  
 19931126.

AB **Polycarbonates** with good melt elasticity, color, heat  
 resistance, water resistance, and transparency are branched  
 copolymers of .gtoreq.2 arom. diols including diols with an ester  
 functionality and diesters of carbonic acid. 2-(4-Hydroxyphenyl)-2-  
 (3'-phenoxy carbonyl-4'-hydroxyphenyl)propane was synthesized and  
 polymd. with bisphenol A and di-Ph carbonate (1.3 mol:0.44 mol:0.46  
 mol) to provide a transparent polymer with limiting viscosity 0.49  
 dl/g, melt flow rate 3.5 g/10 min, and acidic substance content 1.8  
 ppm.

IT **167163-45-3P**

(**polycarbonates** and their manuf.)

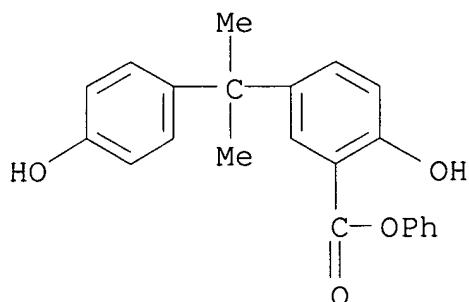
RN 167163-45-3 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]-,  
 phenyl ester, polymer with diphenyl carbonate and  
 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 167163-44-2

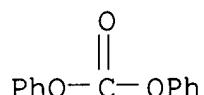
CMF C22 H20 O4



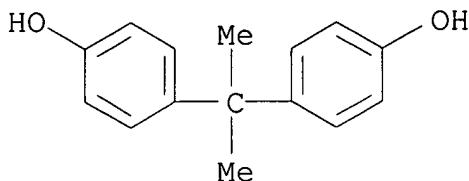
CM 2

CRN 102-09-0

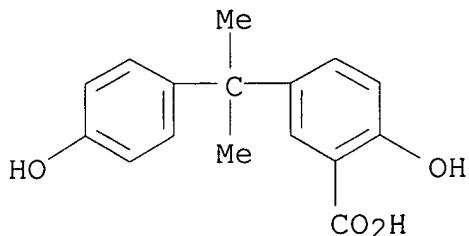
CMF C13 H10 O3



CM 3

CRN 80-05-7  
CMF C15 H16 O2

IT **101949-49-9P**  
 (prepn. of arom. diols for manuf. of **polycarbonates**)  
 RN 101949-49-9 HCA  
 CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
 (CA INDEX NAME)



IC ICM C08G064-06  
 ICS C08G064-10; C08G064-30  
 CC 35-5 (Chemistry of Synthetic High Polymers)  
 ST **polycarbonate** arom manuf  
 IT **Polycarbonates**, preparation  
 (arom., **polycarbonates** and their manuf.)  
 IT Polyesters, preparation  
 (**polycarbonate**-, arom., **polycarbonates** and their manuf.)  
 IT **Polycarbonates**, preparation  
 (polyester-, arom., **polycarbonates** and their manuf.)  
 IT 778-28-9, Butyl p-toluenesulfonate 2082-79-3 2386-87-0  
 31570-04-4, Tris(2,4-di-tert-butylphenyl)phosphite  
 (**polycarbonate** compns.)  
 IT **167163-45-3P**  
 (**polycarbonates** and their manuf.)  
 IT **101949-49-9P** 167163-44-2P  
 (prepn. of arom. diols for manuf. of **polycarbonates**)  
 IT 80-05-7, reactions 102-09-0, Diphenyl carbonate 124-38-9, Carbon

dioxide, reactions

(prep. of arom. diols for manuf. of **polycarbonates**)

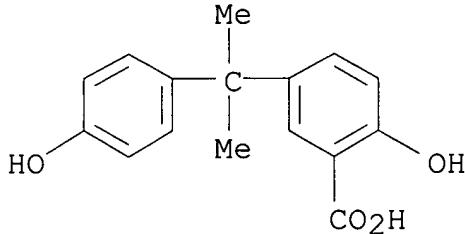
L26 ANSWER 12 OF 15 HCA COPYRIGHT 2005 ACS on STN  
 121:206649 The chemistry of .gamma.-irradiated bisphenol-A  
**polycarbonate.** Factor, A.; Carnahan, J. C.; Dorn, S. B.;  
 Van Dort, P. C. (GE Res. Development, Schenectady, NY, 12301, USA).  
 Polymer Degradation and Stability, 45(1), 127-37 (English) 1994.  
 CODEN: PDSTDW. ISSN: 0141-3910.

AB On exposure to sterilizing doses of  $^{60}\text{Co}$  .gamma.-rays, bisphenol A **polycarbonate** (I) turns a moderately intense yellow color. Product studies of .gamma.-ray irradiated I and a model compd., I cyclic tetramer, were undertaken to define the major degradative process involved, and to try to identify the chem. species responsible for the color. The major irradn. products were isolated and identified using base hydrolysis followed by HPLC/MS anal. These studies showed that the principal degradative process induced by .gamma.-ray irradn. involved Fries type free radical reactions leading to the destruction of the carbonate linkages and formation of a no. of phenol coupling products and salicylate esters. Chromatog./spectroscopic studies indicated that the yellow color was mainly due to the formation of two labile products having a broad  $\lambda_{\text{max}}$  at .apprx.360nm. However, numerous attempts to isolate and identify these compds. using HPLC/MS and GC/MS were unsuccessful.

IT **101949-49-9**  
 (hydrolyzed radiochem. degrdn. products of bisphenol A carbonate cyclic tetramer)

RN 101949-49-9 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
 (CA INDEX NAME)



CC 37-4 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 35, 36, 63

ST **polycarbonate** radiochem degrdn product; sterilization  
 radiochem **polycarbonate**; yellowing **polycarbonate**  
 radiochem sterilization

IT Gamma ray  
 (the chem. of .gamma.-irradiated bisphenol A

IT      **polycarbonate)**  
 IT      **Polycarbonates, properties**  
       (the chem. of .gamma.-irradiated bisphenol A  
       **polycarbonate)**  
 IT      Polymer degradation  
       Sterilization and Disinfection  
       (radiochem., the chem. of .gamma.-irradiated bisphenol A  
       **polycarbonate)**  
 IT      Discoloration  
       (yellowing, radiochem.; the chem. of .gamma.-irradiated bisphenol  
       A **polycarbonate)**  
 IT      **101949-49-9**    134296-36-9    158178-42-8    158178-43-9  
       158178-44-0    158178-45-1    158178-46-2    158178-47-3    158178-48-4  
       158178-49-5  
       (hydrolyzed radiochem. degrdn. products of bisphenol A carbonate  
       cyclic tetramer)  
 IT      21194-07-0    21194-07-0D, hydrolyzed    24936-68-3, Lexan 140,  
       properties    25037-45-0, Bisphenol A-carbonic acid copolymer  
       (the chem. of .gamma.-irradiated bisphenol A  
       **polycarbonate)**

L26 ANSWER 13 OF 15 HCA COPYRIGHT 2005 ACS on STN  
 113:116501 Polycarbonate crosslinking agents for fire-resistant  
 compositions. Rosenquist, Niles R. (General Electric Co., USA).  
 U.S. US 4912194 A 19900327, 6 pp. (English). CODEN: USXXAM.  
 APPLICATION: US 1988-280845 19881207.

AB      Polycarbonates contg. the units  $[-OC_6H_3(CO_2H)ZnC_6H_4(CO_2R)OCO-]$  [Z = C1-15 (halo)alkylene; n = 0 or 1; R = H, (halo)hydrocarbyl] can be  
 crosslinked by heat. Thus, polymn. of bisphenol A 0.495, COCl2 0.6,  
 and di-Et 5,5'-methylenebis(2-hydroxybenzoate) (I) 0.005 mol gave a  
 resin, heating of which at 300.degree. for 60 min gave a crosslinked  
 resin with intrinsic viscosity 0.852 and gel content 15%, vs. 0.540  
 and 0, resp., without I.

IT      **128248-95-3P**  
       (thermosetting, manuf. of)

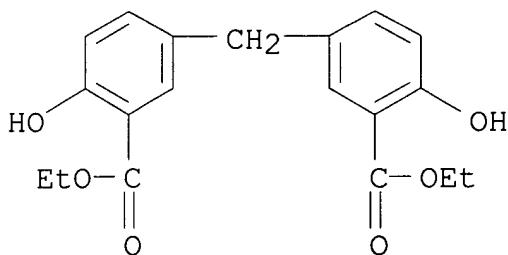
RN      128248-95-3 HCA

CN      Benzoic acid, 3,3'-methylenebis[6-hydroxy-, diethyl ester, polymer  
 with carbonic dichloride and 4,4'-(1-methylethylidene)bis[phenol]  
 (9CI) (CA INDEX NAME)

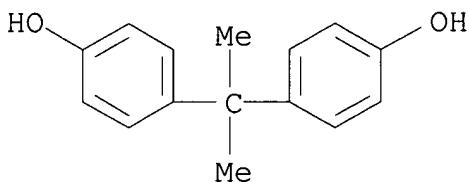
CM      1

CRN    28269-32-1

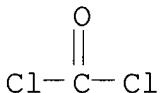
CMF    C19 H20 O6



CM 2

CRN 80-05-7  
CMF C15 H16 O2

CM 3

CRN 75-44-5  
CMF C C12 O

IC ICM C08G063-64  
 INCL 528196000  
 CC 37-6 (Plastics Manufacture and Processing)  
 IT **128248-95-3P**  
 (thermosetting, manuf. of)

L26 ANSWER 14 OF 15 HCA COPYRIGHT 2005 ACS on STN  
 107:154968 Cyclic oligocarbonates. Rosenquist, Niles Richard (General Electric Co., USA). Ger. Offen. DE 3638260 A1 19870514, 9 pp.  
 (German). CODEN: GWXXBX. APPLICATION: DE 1986-3638260 19861110.  
 PRIORITY: US 1985-796984 19851112.  
 AB Cyclic oligocarbonates (d.p. 2-16) which can be polymd. in situ to high-mol. wt. polycarbonates contain bisphenols and carboalkoxylated

(degree of substitution 1-4) bisphenols. Adding COCl<sub>2</sub> at 2.0 g/min to bisphenol A 44.7, di-Me 5,5'-methylenebis(2-hydroxybenzoate) 1.26, and H<sub>2</sub>O 200 g and 200 mL CH<sub>2</sub>Cl<sub>2</sub> with stirring for 21 min, with addn. of 25% NaOH to maintain a pH of 2-5 and adding the resulting CH<sub>2</sub>Cl<sub>2</sub> soln. over 1 h to 6.4 mL Et<sub>3</sub>N, 80 g 50% NaOH, 120 mL H<sub>2</sub>O, and 300 mL CH<sub>2</sub>Cl<sub>2</sub> with stirring gave 24 g acetone-sol. cyclic oligomers. Heating 6 g oligomers contg. 9 mg Me<sub>4</sub>N<sup>+</sup> BPh<sub>4</sub><sup>-</sup> at 120.degree. for 4 h and pressing a film at 250.degree. for 20 min gave a product contg. 41% gel and 59% acetone-sol. polymer with intrinsic viscosity (CH<sub>2</sub>Cl<sub>2</sub>, 25.degree.) 1.97 dL/g.

IT 110563-08-1P

(cyclic, oligomeric, manuf. of)

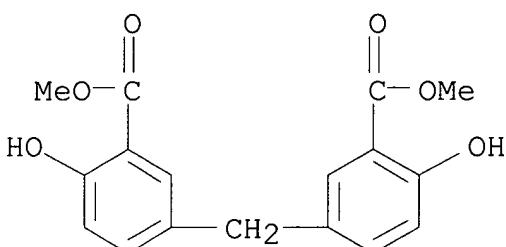
RN 110563-08-1 HCA

CN Benzoic acid, 3,3'-methylenebis[6-hydroxy-, dimethyl ester, polymer with carbonic dichloride and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 28505-57-9

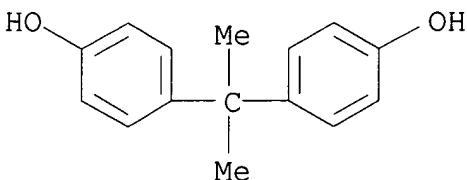
CMF C17 H16 O6



CM 2

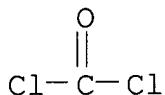
CRN 80-05-7

CMF C15 H16 O2



CM 3

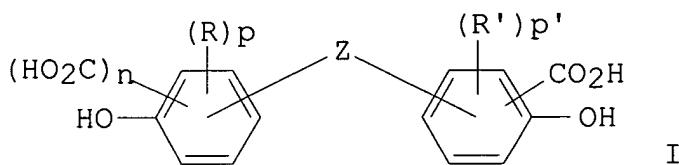
CRN 75-44-5  
CMF C Cl2 O



IC ICM C07D323-00  
ICS C07D327-00; C08G063-62; C08L069-00; C08J005-04; C08J005-24  
ICA C08G075-00; C08G065-48; C08G067-00  
CC 35-5 (Chemistry of Synthetic High Polymers)  
IT **110563-08-1P**  
(cyclic, oligomeric, manuf. of)

L26 ANSWER 15 OF 15 HCA COPYRIGHT 2005 ACS on STN  
104:207918 Branched **polycarbonate** from carboxy-containing  
diphenol. Mark, Victor; Hedges, Charles V. (General Electric Co.,  
USA). U.S. US 4562242 A 19851231, 7 pp. (English). CODEN:  
USXXAM. APPLICATION: US 1984-685907 19841224.

GI

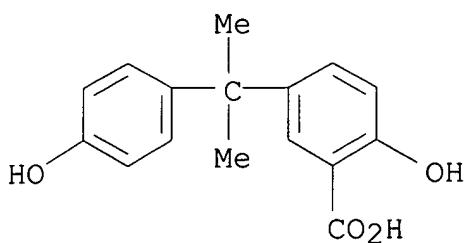


AB High-mol.-wt. thermoplastic, randomly branched  
**polycarbonates** (intrinsic viscosity 0.3-2 dL/g, CH<sub>2</sub>Cl<sub>2</sub>,  
25.degree.) made from an arom. dihydric phenol, a carbonate  
precursor, and a chain-branching agent comprises .gtoreq.1 I (z =  
C4-6 cycloalkylidene; R, R1 = halogen, C1-4 hydrocarbon,  
hydrocarboxy; n, p, p' = 0, 1). For example, 57.1 g  
2,2-bis(4-hydroxyphenyl)propane, 0.75 g PhOH, 0.7 mL triethylamine,  
400 mL Me<sub>2</sub>Cl<sub>2</sub>, 300 mL H<sub>2</sub>O, 0.25 g 2,2'-dihydroxy-5,5'-  
methylenebis(benzoic acid), and 36 g phosgene were reacted. The  
branched **polycarbonate**, pptd. with MeOH, had intrinsic  
viscosity 0.563 dL/g and modified melt flow value (ASTM D 1238,  
300.degree.) 95, 10 s.

IT **101949-49-9**  
(branching agents, for **polycarbonates**)

RN 101949-49-9 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]- (9CI)  
(CA INDEX NAME)



IT **101949-50-2P 101964-29-8P**

(manuf. of branched)

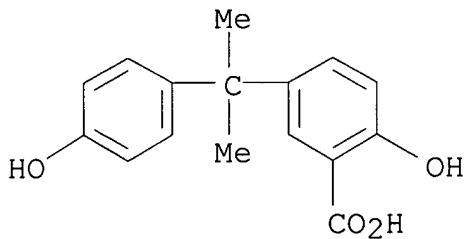
RN 101949-50-2 HCA

CN Benzoic acid, 2-hydroxy-5-[1-(4-hydroxyphenyl)-1-methylethyl]-, polymer with carbonic dichloride and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 101949-49-9

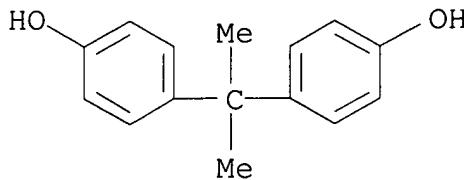
CMF C16 H16 O4



CM 2

CRN 80-05-7

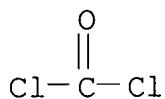
CMF C15 H16 O2



CM 3

CRN 75-44-5

CMF C Cl2 O



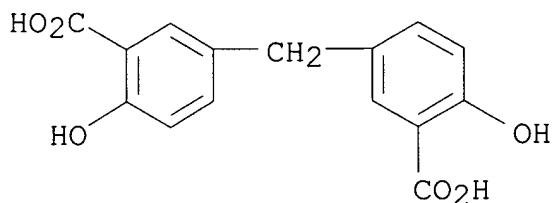
RN 101964-29-8 HCA

CN Benzoic acid, 3,3'-methylenebis[6-hydroxy-, polymer with carbonic dichloride and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 122-25-8

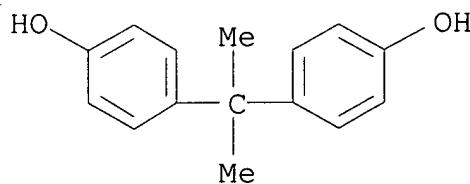
CMF C15 H12 O6



CM 2

CRN 80-05-7

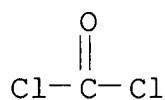
CMF C15 H16 O2



CM 3

CRN 75-44-5

CMF C Cl2 O



IC ICM C08G063-62  
INCL 528193000  
CC 35-5 (Chemistry of Synthetic High Polymers)  
ST branched **polycarbonate** carboxybisphenol  
IT **Polycarbonates**  
    (manuf. of branched, from carboxybisphenols)  
IT **101949-49-9** 102054-11-5 102054-12-6  
    (branching agents, for **polycarbonates**)  
IT 122-25-8 29364-82-7  
    (branching agents, for **polycarbonates**, manuf. of)  
IT 101949-48-8P **101949-50-2P** **101964-29-8P**  
    (manuf. of branched)